



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF UNDERGROUND STORAGE TANKS

COMPLIANCE GUIDANCE DOCUMENT - 101

EFFECTIVE DATE – (ON HOLD)

RE: THRESHOLD LEVELS FOR INTERNAL RELEASE DETECTION METHODS

The purpose of this guidance document is to assist the regulated community in understanding threshold levels and what release rate must be reported as a suspected release.

INTRODUCTION

There are people within the regulated community that believe the 0.2 gallon per hour (gph) release rate for monthly monitoring methods and the 0.1 (gph) release rate for annual methods, are the only release rates used for determining if an UST system has or has not released petroleum. It is incorrect to assume that detectable release rates of less than the amounts stated above do not have to be reported to the Division.

REQUIREMENTS FOR INTERNAL RELEASE DETECTION METHODS

Rule 1200-1-15.04(1)(a)(3) states in part that release detection equipment must meet the performance requirements in Rule 1200-1-15.04(3) or Rule 1200-1-15.04(4), with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer; and Rule 1200-1-15.04(1)(b) states in part, when a release detection method operated in accordance with the performance standards in Rule 1200-1-15.04(3) and Rule 1200-1-15.04(4) indicates a release has occurred, owners and or operators must notify the Division in accordance with Rule 1200-1-15-.05.

CONCLUSION

The threshold for reporting a release for a particular brand of release detection equipment can be found in third party certification results. Third party certification establishes a minimum detectable release rate based upon United States Environmental Protection Agency protocol. This rate must be at least 0.2 (gph) for automatic tank gauging and statistical inventory reconciliation. This rate must be at least 0.1 (gph) for tank and line tightness testing. Additionally, the minimum detectable release rate must have at least a 95% probability of detection and no more than a 5% probability of false alarm.

For third party certification, the minimum detectable release rate is established as a benchmark for internal release detection methods, and must achieve it in order to be certified. The threshold is the release rate which has been established by third party certification. This threshold establishes the minimum level a release detection method must achieve while maintaining testing integrity of at least a 95% probability of detection and no more than a 5% probability of false alarm. The threshold could be as high as 0.2 gallons per hour or less for monthly monitoring methods or 0.1 gallons per hour or less for annual methods. For example, if your release detection method has a threshold value of 0.01 gallons per hour and the method indicates a release rate of 0.011 gallons per hour, then the UST owner/operator must report a suspected release to the Division within 72 hours.